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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/502,420
				Filing Date	August 26, 2005
				First Named Inventor	Richard O. Chen
				Art Unit	1631
Sheet	1	of	4	Examiner Name	Lori A Clow
				Attorney Docket Number	27763-705.831

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	1.	US 2002/0165737 A1	11/07/2002	Mahran		
	2.	US 2004/0220969 A1	11/04/2004	Cho et al.		
	3.	US 2004/0236740 A1	11/25/2004	Cho et al.		
	4.	US 2005/0044071 A1	02/24/2005	Cho et al.		
	5.	US 2005/0055347 A9	03/10/2005	Cho et al.		
	6.	US 2010/0010957 A1	01/14/2010	Cho et al.		
	7.	US 5,317,507	05/31/1994	Gallant		
	8.	US 5,371,807	12/06/1994	Register et al.		
	9.	US 5,377,103	12/27/1994	Lamberti et al.		
	10.	US 5,418,971	05/23/1995	Carison		
	11.	US 5,625,721	04/29/1997	Lopresti et al.		
	12.	US 5,794,050	08/11/1998	Dahlgren et al.		
	13.	US 5,963,966	10/05/1999	Mitchell et al.		
	14.	US 5,976,842	11/02/1999	Wurst		
	15.	US 6,023,659	02/08/2000	Seilhamer et al.		
	16.	US 6,038,560	03/14/2000	Wical		
	17.	US 6,052,714	04/18/2000	Miike et al.		
	18.	US 6,067,548	05/23/2000	Cheng		
	19.	US 6,101,488	08/08/2000	Hayashi et al.		
	20.	US 6,115,640	09/05/2000	Tarumi		
	21.	US 6,154,737	11/28/2000	Inaba et al.		
	22.	US 6,226,377	05/01/2001	Donaghue		
	23.	US 6,236,987	05/22/2001	Horowitz et al.		
	24.	US 6,263,335	07/17/2001	Paik et al.		
	25.	US 6,292,796	09/18/2001	Drucker et al.		
	26.	US 6,308,170	10/23/2001	Balaban		
	27.	US 6,345,235	02/05/2002	Edgecombe et al.		
	28.	US 6,370,542	04/09/2002	Kenyon		

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		Number-Kind Code ² (if known)			
	29.	US 6,424,980	07/23/2002	Iizuka et al.	
	30.	US 6,442,566	08/27/2002	Atman et al.	
	31.	US 6,470,277	10/22/2002	Chin et al.	
	32.	US 6,487,545	11/26/2002	Wical	
	33.	US 6,498,795	12/24/2002	Zhang et al.	
	34.	US 6,598,043	07/22/2003	Baclawski	
	35.	US 6,741,976	05/25/2004	Tuzhilin	
	36.	US 6,904,423	06/07/2005	Nicolaou et al.	
	37.	US 7,022,905	04/04/2006	Hinman et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ³
		Country Code ² - Number ² - Kind Code ² (if known)				
	38.	GB 2350712 A	12/06/2000	Hashimoto et al.		
	39.	JP 11-259498 (in Japanese with English abstract)	09/24/1999	Hashimoto et al.		
	40.	JP 2001-134600 (in Japanese with English abstract)	05/18/2001	Yamada		

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	41.	BLASCHKE, et al. 1999. Automatic extraction of biological information from scientific text: protein-protein interactions. Proc Int Conf Intell Syst Mol Biol. 60-7.	
	42.	Business Week. GM finally has a real winner. But success is bringing a fresh batch of problem. McGraw-Hill Co. Inc. August 17, 1992.	
	43.	CHAKKOUR, et al. Sentence Analysis by Case-Based Reasoning. The Fourteenth International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems IEA/AIE 2070. 2001; 546-551.	
	44.	CHAUDHRI, et al. 1998. OKBC: A programmatic foundation for knowledge base interoperability. In Proceedings of the 1998 National Conference on Artificial Intelligence.	
	45.	FARQUHAR, et al. May 14, 1997. The ontolingua server: a tool for collaborative ontology construction. Stanford University. Pages 1-22.	
	46.	HAFNER, et al. Ontological Foundations for Biology Knowledge Models. 4th International Conference. on Intelligent Systems for Molecular Biology, Jun. 12-15, 1996 at Washington University in St. Louis, Missouri.	
	47.	HALPIN, T. Object-role modeling (ORM/NIAM). Handbook on Architectures of Information Systems. Ch. 4. 1998.	
	48.	International search report dated 1/10/2003 for PCT Application No. US02/35650.	
	49.	International search report dated 7/22/2004 for PCT Application No. US03/03006.	
	50.	KARP, et al. 2000. HinCyc: A knowledge base of the complete genome and metabolic pathways of H. influenzae. Proc Int Conf Intell Syst Mol Biol. 4: 116-24.	
	51.	Newswire Association Inc. On-line Tests Give Instant Feedback on Office Skills. February 14, 1998.	
	52.	NOY, et al. The knowledge model of protege 2000: Combining interoperability and flexibility. Springer. 2000; 17-32.	
	53.	RINDFLESCH, et al. Extracting molecular binding relationships from biomedical text.	

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NON PATENT LITERATURE DOCUMENTS			
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		Presented May 2, 2000 at the Sixth Applied Natural Language Processing Conference from 4/29/00-5/4/00 in Seattle, Washington.	
	54.	RZHETSKY, et al. A knowledge model for analysis and simulation of regulatory networks. Bioinformatics. 2000 Dec;16(12):1120-8.	
	55.	SEKIMIZU, et al. 1998. Identifying the Interaction Between Genes and Gene Products Based on Frequently Seen Verbs in Medline Abstracts. Genome Inform Ser Workshop Genome Inform. 9: 62-71.	
	56.	Supplementary European Search Report dated 9/21/2007 re Appln. No. 02778752.2	
	57.	THOMAS, et al. 2000. Automatic Extraction of Protein Interactions from Scientific Abstracts. Pacific Symposium on Biocomputing. 541-52.	

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